

Application No. 10/707,999
Docket No. A4-1719
Amendment dated January 3, 2006
Reply to Office Action of November 3, 2005

REMARKS

In the Office Action, the Examiner reviewed claims 1-25 of the above-identified US Patent Application, with the result that claims 3, 7-12, 15, and 17-25 remained withdrawn from consideration due to a election requirement, and rejections of the remaining claims under 35 USC §112 and under 35 USC §102 in view of U.S. Patent No. 6,258,185 to Branagan et al. were withdrawn. However, the present Office Action raises a new rejection of the remaining claims under 35 USC §102 in view of U.S. Patent No. 4,909,840 to Schlump. In response, Applicants have amended the claims as set forth above. More particularly:

Independent claim 1 has been amended to exclude the term "particulate" from the list of possible shapes for the polycrystalline chips.

Dependent claim 5 and independent claims 13 and 17 have been amended to set a lower limit of about 30 nanometers for the nominal grain size for the chips. Support for these amendments can be found in Applicants' specification at, for example, paragraph [0032] (paragraph [0039] according to the USPTO authoring software).

Applicants believe that the above amendments do not present new

Application No. 10/707,999
Docket No. A4-1719
Amendment dated January 3, 2006
Reply to Office Action of November 3, 2005

matter, and place the claims in condition for allowance.¹ Applicants also believe that the above amendments do not raise new issues that would require further consideration and/or search by the Examiner, and place the claims in better condition for appeal.

Favorable reconsideration and allowance of claims 1-25 are respectfully requested in view of the above amendments and the following remarks.

As noted above, independent claims 1 and 13 and their dependent claims 2, 4-6, 13, 14, and 16 were rejected under 35 USC §102(b) as being anticipated by Schlump.

Independent claim 1 now excludes "particulates" from the list of possible shapes for the polycrystalline chips, such that now the recited chip shapes are "ribbons, wires, filaments, and/or platelets." Schlump neither discloses nor suggests that his particles could have such shapes, and instead limits his description of his particles to "powders" and "powder particles," which

¹ MPEP §714.13 instructs:

The refusal to enter the proposed [Rule 116] amendment should not be arbitrary. The proposed amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified. (Emphasis added.)

Application No. 10/707,999
Docket No. A4-1719
Amendment dated January 3, 2006
Reply to Office Action of November 3, 2005

appears to be inherent from the processes by which Schlump produces his particles. Because Applicants' claimed "ribbons, wires, filaments, and/or platelets" are outside the scope of Schlump's "powder particles," Applicants believe that Schlump does not anticipate or suggest the invention recited in independent claim 1 or its dependent claims.

Dependent claim 5 and independent claims 13 and 17 now have a lower limit of about 30 nanometers for the nominal grain size for the chips. Schlump neither discloses nor suggests that his particles could or should have such grain sizes, and instead limits his description of nanocrystalline materials as having grain sizes of "a few nanometers" and "a size ranging from 1 to 10 nm" (e.g., see column 1, lines 12-22). Because Applicants' claimed nanocrystalline size range is outside Schlump's range, Applicants believe that Schlump does not anticipate or suggest the invention recited in dependent claim 5, independent claim 13 and its dependent claims, and independent claim 17 and its dependent claims.

In view of the above, Applicants believe that Schlump does not anticipate independent claims 1, 13, or 17 nor any of their dependent claims, and therefore respectfully request withdrawal of the rejection under 35 USC §102.

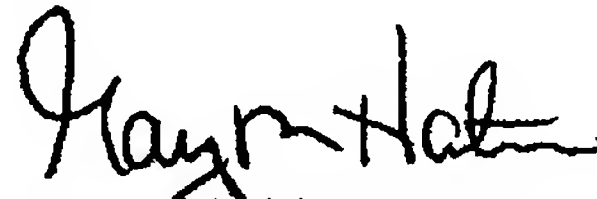
Application No. 10/707,999
Docket No. A4-1719
Amendment dated January 3, 2006
Reply to Office Action of November 3, 2005

Closing

In view of the above, Applicants respectfully request that their patent application be given favorable reconsideration.

Should the Examiner have any questions with respect to any matter now of record, Applicants' representative may be reached at (219) 462-4999.

Respectfully submitted,

By 
Gary M. Hartman
Reg. No. 33,898

January 3, 2006
Hartman & Hartman, P.C.
Valparaiso, Indiana 46383
TEL.: (219) 462-4999
FAX: (219) 464-1166